RP-200260

3GPP TSG RAN Meeting #87e
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On the Rel-15 UE (in)capability of slot aligned non-SFN-sync DC

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Background

RAN#85 (Sept 2020)

- RP-192345 was endorsed for the late drop on synchronous NR-NR DC, introducing a new Rel-15 UE capability (i.e. a lack of capability for non-SFN-sync)
  - Inclusion of the bit means the UE is incapable of slot aligned non-SFN-sync DC.
  - Omission of the bit means the UE is capable of slot aligned non-SFN-sync DC.
- The decision was implemented as backward compatible Rel-15 CRs based on the June specification version. Rel-15 CRs were agreed in RP-192346 (introduction of UE capability for NR-DC with SFN synchronization between PCell and PSCell in TS38.306) and RP-192347.
- Rel-16 UEs will not be allowed to use the bit defined in Rel-15.
- RAN#87 (March 2020) to re-address the issue of mandating Release-15 UEs supporting NR-NR DC to support slot aligned non-SFN-sync DC.

Discussion and Proposal

- Per the decision of RAN#85, Rel-16 UEs will be mandated to support slot aligned non-SFN-sync DC.
- Rel-16 UEs can start being built based on the ASN.1 frozen version of Rel-16 specifications (June 2020), which shall disable this capability bit in the June 2020 Rel-16 specifications.
- At that time, the capability to support slot aligned non-SFN-sync DC will be available and can thus be applied to new Rel-15 UEs being produced based on June 2020 version of Rel-15 specifications.

Proposal 1: Rel-15 UEs produced based on the June 2020 Rel-15 specifications versions and later versions are not allowed to signal capability *sfn-SyncNRDC*

Proposal 2: Rel-16 specifications to be approved in June must implement the RAN#85 decision that UEs shall disable this capability bit.

CR Example

- Changes to TS 38.306 for Rel-15 (v15.8.0):

4.2.7.12 *NRDC-Parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
sfn-SyncNRDC Indicates the UE supports NR-DC only with SFN and frame synchronization between PCell and PSCell. If not included by the UE supporting NR-DC, the UE supports NR-DC with slot-level synchronization without condition on SFN and frame synchronization. A UE of this release is not allowed to signal this capability if the UE has been implemented based on v15.X.0 or later of this specification.	UE	No	No	No